

U.S.S.N. 09/808,584

Remarks

Applicants thank the Examiner for kindly indicating that claims 25-28 would be allowable if rewritten in independent form. Applicants have done this in the form of new claims 58-61. Applicants also thank the Examiner for his helpful suggestions regarding the amendments to claims 11, 16, 18, and 25.

Claims 1, 2, 9, 11, 12, 16, 18-20, 25 and 57 have been amended. New claims 58-61 have been added. No new matter has been added. Claims 11, 16, 18, and 25 have been amended to correct clerical errors and not for reasons related to patentability. Claims 2, 9, 12, and 20 have been amended for clarity and not for reasons related to patentability. Support for the amendments to claims 1, 19, and 57 can be found in general in Applicants' Specification and in particular, for example, as follows: claim 1, page 8, lines 18 to page 9, line 4, claim 19, page 8, lines 18 to page 9, line 4, and claim 57, page 8, lines 18-19.

Applicants submit that the amendments to claims 11, 16, 18 and 25 overcome the objections of record.

Applicants' invention is directed to a coating apparatus in which a metering bar exerts a force against an applicator. In operation, a coating composition is present in the nip formed by the metering bar and the applicator. When the applicator moves, the coating composition exerts a hydraulic force against the metering bar. If the hydraulic force is greater than the force exerted by the metering bar against the applicator, the hydraulic force will cause the metering bar to move away from the applicator allowing an amount of composition to move past the metering bar as it is carried on the applicator.

Claims 1, 3, 9, 10, 19-22, 34, and 35 stand rejected under 35 U.S.C. § 102(b) over Prasad (U.S. Patent 5,628,826).

Prasad discloses a belt coating system for coating needles with a lubricant. The system includes an upper belt assembly, a lower belt assembly, a sponge, and a scraper. The sponge receives a lubricant composition from a container and applies it to the upper endless belt. The scraper prevents excess lubricating solution from being applied.

Claim 1 is now directed to an apparatus for coating an article where the apparatus includes an applicator, a conveyor for sequentially transporting a plurality of articles to

U.S.S.N. 09/808,584

the applicator, and a metering bar that includes a fixed arcuate end positioned against the applicator to meter a predetermined amount of coating composition to the applicator for transfer to an article transported to the applicator by the conveyor. The metering bar forms a nip with the applicator and exerts a force against the applicator. The predetermined amount of coating composition is determined, in part, by the force of the metering bar and a hydraulic force present at the nip. Prasad does not teach a metering bar that includes a fixed arcuate end. Prasad refers to element 31 as a scraper or a doctor blade. Prasad does not teach anything about the nature of his scraper or doctor blade. Prasad also does not teach that the amount of composition metered to his conveyor belt is determined, in part, by the force his scraper exerts against his conveyor belt and a hydraulic force present at a nip formed between the two. Applicants submit, therefore, that the rejection of claim 1 under 35 U.S.C. § 102(b) over Prasad has been overcome, and request that it be withdrawn.

Applicants submit that claims 3, 9, 10, 19-22, 34, and 35 are distinguishable under 35 U.S.C. § 102(b) over Prasad for at least the same reasons set forth above in distinguishing claim 1.

Claims 1-3, 9, 11-13, 16, 18, and 57 stand rejected under 35 U.S.C. § 102(b) over Yoshida et al. (U.S. Patent 4,949,667).

Yoshida et al. disclose a roll coating apparatus for coating high viscosity compositions. Yoshida et al. disclose a number of embodiments of their coating apparatus. In general, the apparatus includes a coating roll, a doctor bar for contact with the circumferential surface of the coating roll, and a coating liquid supply nozzle. The doctor bar includes a liquid reservoir on its upper surface.

Claim 1 is directed to a coating apparatus that includes a metering bar that includes a fixed arcuate end positioned against an applicator. The devices of Yoshida et al. include either a metering bar or a metering roller. Yoshida et al. do not teach anything about the nature of the end of their metering bar. Therefore Yoshida et al. do not teach a metering bar that includes a fixed arcuate end. In addition, the metering rollers of Yoshida et al. rotate about a central axis, i.e., they are not fixed. Yoshida et al. thus fail to teach a metering bar that includes a fixed arcuate end, as now required by claim 1.

U.S.S.N. 09/808,584

Applicants submit, therefore, that the rejection of claim 1 under 35 U.S.C. § 102(b) over Yoshida et al. has been overcome, and request that it be withdrawn.

Applicants submit that claims 2, 3, 9, 11-13, 16, 18, and 57 are distinguishable under 35 U.S.C. § 102(b) over Yoshida et al for at least the same reasons set forth above in distinguishing claim 1.

Claims 1, 9, and 10 stand rejected under 35 U.S.C. § 102(b) over Kirk-Othmer Encyclopedia of Chemical Technology, page 395 (Kirk-Othmer).

The Kirk-Othmer reference is a chapter on coating processes. The specific page cited in the Office action discloses the operation of a coating apparatus in which an endless felt blanket is wetted with coating from a pan and the surface of the endless blanket is then scraped by a doctor knife to remove excess coating prior to contact with the board surface.

Claim 1 is directed to a coating apparatus that includes a metering bar that includes a fixed arcuate end positioned against an applicator to meter a predetermined amount of coating composition to the applicator. The metering bar forms a nip with the applicator and exerts a force against the applicator. The predetermined amount of coating composition is determined, in part, by the force of the metering bar and a hydraulic force present at the nip. Kirk-Othmer does not teach a metering bar that includes a fixed arcuate end positioned against an applicator. Kirk-Othmer also does not teach an apparatus in which the metering bar exerts a force against an applicator and meters a predetermined amount of coating composition to the applicator where the predetermined amount of coating composition is determined, in part, by the force the metering bar exerts against the applicator and a hydraulic force present at the nip between the applicator and the metering bar. Accordingly, Applicants submit that the rejection of claim 1 under 35 U.S.C. § 102(b) over Kirk-Othmer has been overcome.

Applicants further submit that claims 9 and 10 are distinguishable under 35 U.S.C. § 102(b) over Kirk-Othmer for at least the same reasons set forth above in distinguishing claim 1.

Applicants submit that the amendments to claim 1 render moot the remaining rejections of claims 6-8 under 35 U.S.C. § 103(a) over Prasad, claims 4 and 5 under 35 U.S.C. § 103(a) over Yoshida et al. in view of the Kirk Othmer, claims 6 and 7 under 35

U.S.S.N. 09/808,584

U.S.C. § 103(a) over Yoshida et al., claims 8 and 17 under 35 U.S.C. § 103(a) over Yoshida et al. in view of Shafer and claims 6, 7, 8, and 11-15 under 35 U.S.C. § 103(a) over Kirk Othmer, and request that they be withdrawn.

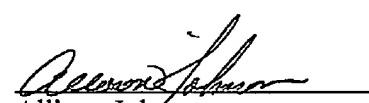
Applicants further submit the rejections of claims 23, 24, and 26-33 under 35 U.S.C. § 103(a) over Prasad (U.S. 5,628,826) in view of the Kirk-Othmer, and the rejection of claims 19-22 and 32-35 under 35 U.S.C. § 103(a) over Kirk-Othmer, have been rendered moot in light of the amendment to claim 19. Accordingly, Applicants also request that these rejections be withdrawn as well.

The claims now pending in the application are in condition for allowance and such action is respectfully requested. Applicants respectfully request a teleconference interview prior to the issuance of an additional action other than a Notice of Allowance.

Please charge any additional fees owing or credit any over payments made to Deposit Account No. 501,171.

Respectfully submitted,

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